Board Of Intermediate & Secondary Education, HYDERABAD, SINDH.

Secondary School Certificate Part – II Annual Examination 2012

Annual Examination 2012 | **PHYSICS** | HYDERABAD BOARD

Time: 15 Minutes — M. Marks: 15

Note: (1) Attempt all the questions. Each questions carries ONE mark.
(2) Do not copy down the part questions in your answer book.
Write only the answer in full against the proper number of the Question and its part, and MCQs question paper must be attached with answer book.
(3) The Code of your question paper must be mentioned in bold letters in the answer book.

Section-A

Multiple Choice Question (MCQs)

Q-01: Choose the correct answer for each from the given option.

(i) The eye and the camera are similar because the image formed in both is ....
(a) Real, inverted and small (b) Real, erect and small
(c) Virtual, erect and small (d) Real, inverted and enlarged

(ii) The speed of light is............... m/s
(a) 3×10^8 (b) 1.86×10^6 (c) 3×10^8 (d) 3×10^{10}

(iii) The unit of capacity is known as ....
(a) Coulomb (b) Volt (c) Ohm (d) Farad

(iv) The relation between electric current and the magnetic field was discovered by...........
(a) Newton (b) Faraday (c) Fleming (d) Oersted

(v) The emission of rays from the nucleus is called............
(a) Chemical process (b) Atomic process
(c) Radio-activity (d) Atomic dispersion

(vi) The sea-saw is an example of a lever of .... kind.
(a) First (b) Second (c) Third (d) None of these

(vii) A piece of metal becomes hot when it lies in the sun through
(a) Conduction (b) Convection (c) Radiation (d) None of these

(viii) Speed of sound in air at normal temperature pressure (N.T.P) is ....m/s.
(a) 336 (b) 672 (c) 712 (d) 785

(ix) All the rays, parallel to the principal axis, falling on a concave mirror, pass after reflection through its...........
(a) Pole (b) Principal focus
(c) Centre of curvature (d) None of these

(x) If the force acting on a body is doubled, then the acceleration produced is......
(a) 1/2 (b) 1/4 (c) Double (d) Quadrupled

(xi) A body is said to be in a state of neutral equilibrium if its centre of gravity is....
(a) Below the point of suspension (b) Above the point of suspension
(c) At the point of suspension (d) None of these

(xii) "G" is called............
(a) Gravitational attraction (b) Acceleration due to gravity
(c) Gravitational force (d) Gravitation constant

(xiii) The unit of work is ....
(a) Watt (b) Joule (c) Newton (d) Kilogram

(xiv) The name of the famous book of Al-Beruni was..........
(a) Kitab-ul-Manazir (b) Algabar-wal-Muqabla
(c) Qanoon-al-Masudi (d) Zil-Khani

(xv) The fundamental unit of length in S.I unit of measurement is ....
(a) Kilometer (b) Metre (c) Yard (d) None of these

(xvi) .... Is a vector quantity.
(a) Mass (b) Torque (c) Distance (d) Time

(xvii) By dividing the displacement of a moving body by the time taken we obtain......
(a) Average speed (b) Average velocity
(c) Uniform velocity (d) Acceleration

TIME ALLOWED: 2:40 MINUTES — MARKS: 68

SECTION – B

NOTE: **Answer Any EIGHT of the Following Questions. All Quistions Carry Equal Marks.** 40

Q.No.2: What is the contributions of Dr.A. Salam in the field of [illegible]sics?

Q-No:3 Write names of seven fu[illegible]amental units and seven d[illegible]ved units with their symbols in Internatio[illegible] system of units.

Q-No:4 A boy is pulling a cart on a level road with a force of 20 N with the help of a rope making an angle of 30° with the ground level. Find the horizontal and vertical component.

Q-No:5 State Newton's First law of motion, giving examples from every day life.

Q-No:6 Write a note on THREE States of equilibrium.

Q-No:7 A resultant force of 20 N acts on an object of mass 4 kg for 10 m. Find the final speed if the initial speed is 5 m/s.

Q-No:8 Describe the construction of simple pully.

Q-No:9 Define stress and strain.

Q-No:10 Describe various scales for the measurement of temperature.

Q-No:11 Drive mirror equation using concave mirror.

Q-No:12 Find the potential difference between the two ends of a conductor, if it offer a resistance of 5 ohm. Take the current flowing through the conductor as 5 amperes.

Q-No:13 The focal length of a convex lens is one meter an object is placed at a distance of 2m before it. Determine the position, nature and magnification of the image.

SECTION – C

NOTE: **Answer Any TWO of the Following Questions. All Quistions Carry Equal Marks.** 28

Q-No:14 (a) Define the terms wavelength, frequency and time period. Drive an equation between velocity, wavelength and frequency.
(b) A force of 50 N acts on a body. If moment arm is 0.5 m. Find the value of Torque.

Q-No:15 (a) Drive an equation for the mass of the earth by applying law of gravitation.
(b) A train starting from a station acquires a speed of 90 km/h in 25 minutes. It then continues to move with uniform speed for 2 hours. Then brakes are applied and it comes to rest in 25 minutes. Find the total distance covered.

Q-No:16 (a) Explain the working of an Electric Motor.
(b) If 117.60 joules of heat is required to raise the temperature of 10g of silver through $50^\circ C$. Calculate the specifie heat of silver.